



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,417	07/18/2003	Sachin Navin Chheda	200308578-1	4994
22879 7590 02/19/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER DU, THUAN N	
			ART UNIT 2116	PAPER NUMBER
			NOTIFICATION DATE 02/19/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary

Application No.

10/623,417

Applicant(s)

CHHEDA ET AL.

Examiner

Thuan N. Du

Art Unit

2116

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-16,22 and 23 is/are allowed.
- 6) ☒ Claim(s) 17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. In view of the appeal brief filed on November 25, 2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Thomas Lee/

2. Claims 1-3, 5-17 and 19-23 are presented for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 17 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somers et al. [Somers], U.S. Patent No. 6,718,474 in view of Primm et al. [Primm], U.S. Patent No. 7,159,022.

5. As per claim 17, Somers teaches a method for efficient temperature management of a plurality of computers (CPUs 100), the method comprising:

monitoring temperature at each computer (CPU 100) in the system [col. 3, lines 17-22, 43-50; col. 4, lines 4-7];

receiving polling messages at each computer (CPU 100) in the system [col. 4, lines 8-10, 26-27; col. 6, lines 22-23];

responding to the polling messages by transmitting a temperature value from each computer (CPU 100) in the system to a single centralized power manager (SMM 300) [col. 3, lines 17-22, 30-36, 46-50; col. 4, lines 8-10, 26-27; col. 6, lines 22-24]; and

receiving messages from the single centralized power manager (SMM 300) which instruct each computer (CPU 100) when power management action is to be applied [col. 4, lines 11-17, 27-29; col. 5, lines 3-13; col. 6, lines 24-31].

Somers does not explicitly teach that the power management action is applying thermoelectric cooling to the affected computer. However, Somers discloses that thermoelectric cooler is widely known used to dissipate heat [col. 1, lines 18-23]. Therefore, one of ordinary skill in the art would have recognized that the thermoelectric cooler could be used in placed of or in combination with the clock throttling technique taught by Somers.

Somers does not explicitly teach that the system is a rack of computers. Primm discloses a system for monitor temperature for a plurality of computers (network appliances) where the computers could be placed in a rack [col. 7, lines 20-26]. It would have been obvious to one of ordinary skill in the art at time of the invention to recognize that the teachings of Somers could be applicable to monitor temperature of a plurality of computers placed in a rack, as taught by Primm, without departing from the scope and spirit of the teachings.

6. As per claim 19, Primm teaches that the rack of computers comprises a rack of servers [col. 7, lines 20-21].

7. As per claim 20, Somers teaches a centralized method for efficient temperature management of a plurality of computers (CPUs 100), the method comprising:

transmitting polling messages to local monitoring circuitry (thermal sensor 120) at each of the computers (CPUs 100) in the system [col. 4, lines 8-10, 26-27; col. 6, lines 22-23];

receiving responses to the polling messages from the local monitoring circuitry at each of the computers (CPUs 100) in the system [col. 4, lines 8-10, 26-27], wherein the responses include temperature values [col. 3, lines 19-22; col. 6, lines 22-26];

determining at which computers to apply power management action [col. 5, lines 3-13; col. 6, lines 24-31]; and

transmitting messages to said determined computers to apply said power management action [col. 4, lines 12-17; col. 6, lines 33-34].

Somers does not explicitly teach that the power management action is applying thermoelectric cooling to the affected computer. However, Somers discloses that thermoelectric cooler is widely known used to dissipate heat [col. 1, lines 18-23]. Therefore, one of ordinary skill in the art would have recognized that the thermoelectric cooler could be used in placed of or in combination with the clock throttling technique taught by Somers.

Somers does not explicitly teach that the system is a rack of computers. Primm discloses a system for monitor temperature for a plurality of computers (network appliances) where the computers could be placed in a rack [col. 7, lines 20-26]. It would have been obvious to one of ordinary skill in the art at time of the invention to recognize that the teachings of Somers could be applicable to monitor temperature of a plurality of computers placed in a rack, as taught by Primm, without departing from the scope and spirit of the teachings.

8. As per claim 21, Primm teaches that the rack of computers comprises a rack of servers [col. 7, lines 20-21].

Response to Arguments

9. Applicant's arguments with respect to claims 17 and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 1-3, 5-16 and 22-23 are allowed.

Conclusion

11. Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the Applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. In preparing responses, it is respectfully requested that the Applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. Also, any prior art made of record and not relied upon is also considered pertinent to Applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday-Friday: 7:30 AM - 4:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached at (571) 272-3667.

Central TC telephone number is (571) 272-2100.

The fax number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2116

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

TD

February 5, 2009

/Thuan N. Du/

Primary Examiner, Art Unit 2116